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Charles S. Swartz, Edwin E. Catmull, Robin King, Richard Weinberg, Jane Veeder

August 1997 Proceedings of the 24th annual conference on Computer graphics and interactive techniques

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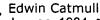
Proceedings of the 1992 symposium on Interactive 3D graphics

Marc Levoy, Edwin E. Catmull, David Zeltzer

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An analytic visible surface algorithm for independent pixel processing



January 1984 ACM SIGGRAPH Computer Graphics, Proceedings of the 11th annual conference on Computer graphics and interactive techniques SIGGRAPH

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Thomas W. Sederberg, Jianmin Zheng, David Sewell, Malcolm Sabin

July 1998 Proceedings of the 25th annual conference on Computer graphics and interactive techniques

Publisher: ACM Press

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Keywords: B-splines, Catmull-Clark surfaces, Doo-Sabin surfaces

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Ilia Friedel, Patrick Mullen, Peter Schröder

June 2003 Proceedings of the eighth ACM symposium on Solid modeling and applications

Publisher: ACM Press

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In this paper we present a new algorithm for solving the data dependent fairing problem for subdivision surfaces, using Catmull-Clark surfaces as an example. Earlier approaches to subdivision surface fairing encountered problems with singularities in the parametrization of the surface. We address these issues through the use of the characteristic map parametrization, leading to well defined membrane and bending energies even at irregular vertices. Combining this approach with ideas from data-dep ...

Keywords: CAD, Catmull-Clark, bicubic b-splines, fairing, geometric modeling, nonlinear minimization, subdivision surfaces, thinplate energy

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D Zorin, P Schröder, W Sweldens - Proceedings of the 23rd annual conference on Computer

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